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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,192

03/09/2006

Axel H. Schmidt

2133.098USU

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07/09/2009

OHLANDT, GREELEY, RUGGIERO & PERLE, LLP
ONE LANDMARK SQUARE, 10TH FLOOR
STAMFORD, CT 06901

EXAMINER

PARVINI, PEGAH

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

07/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,192	Applicant(s) SCHMIDT, AXEL H.	
	Examiner PEGAH PARVINI	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 20-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, claims 1-9 and 11-20 in the reply filed on March 12, 2009 is acknowledged. This appears to be a typographical error since group I claims include claims 1-19 and 28, thus it is assumed applicants mean claims 1-19 and 28 not claims 1-9 and 11-20. The traversal is on the ground(s) that the DE 3624164 reference fails to disclose or suggest a natural straw which is partly disintegrated as a filler. This is not found persuasive because the translation of the same reference, in fact, discloses the use of materials such as straw and wood wool which has been decomposed in pages 2 and 5 of the translation (see attached document). Furthermore, it is noted that straw is natural by definition, and specially the said reference groups the straw among raw materials.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is indefinite because the examiner is unclear as to what "at least partially annulled" encompasses thus rendering the scope of the claim unclear.

Claim Rejections - 35 USC § 102/35 USC § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DE3624164 to Haacke (see the attached translated document).

Haacke teaches a heat-insulating, sound-insulating (i.e. deadening material), and/or shock-insulating layers made up of materials such as straw and bonding agent (page 2); furthermore, the reference discloses that the straw could be allowed to decompose (page 5, lines 18-21).

It is to be noted that since the instant claim recite “at least partly disintegrated”, the disclosure of the reference on the decomposition of the straw is seen to read on the limitation of instant claim, thus anticipating this limitation.

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With reference to natural straw, it is to be noted that Haacke groups straw among raw materials used; therefore, it is the examiner's position that said straw is natural absence clear and specific evidence showing the contrary.

Assuming arguendo about the decomposition limitation (however, the examiner still finds that the teaching of "could be decomposed" in the reference anticipates this limitation), the fact that the reference clearly teaches that the material "could decompose" would render the claimed limitation obvious since one skilled in the art would clearly appreciate that decomposition can take place.

Claim Rejections - 35 USC § 103

Claims 2-3, 8-9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke.

Regarding claim 2, Haacke teaches a sound-insulating material comprising raw materials such as straw (i.e. natural straw) which could be decomposed and bonding agent as detailed above.

It is apparent and known that natural straw comprises natural fiber. Since the reference discloses the possibility of decomposing straw, thus, the characteristic of neutralization as a result of disintegration or decomposition is expected to follow from the decomposed raw or natural straw absence specific evidence proving the contrary. It is to be noted that the reference teaches the natural fiber (i.e. natural or raw straw) is "at least partly neutralized"; thus, the disclosure of the reference is seen to read on instantly claimed limitation.

Regarding claim 3, considering the fact that instant claim 3 recites that the “disintegration of the natural straw being at least partly annulled”, it is the examiner’s position that instant reference reads on the limitation of instant claims specially because of the fact that Haacke teaches that the straw “could be allowed to decompose”. Therefore, the decomposition is optional and the examiner is interpreting “at least partially annulled” to be “at least partially decomposing”.

Regarding claim 8, it is to be noted that Haacke teaches grinding the raw materials such as straw (page 2). Although the reference may not expressly disclose that the grinding or shortening length of the straw happens before disintegration, the fact that the reference broadly disclose grinding and decomposition is interpreted to have decomposed straw before or after grinding absence clear and specific evidence showing otherwise.

Regarding claim 9, it is to be noted that although Haacke may not expressly disclose a size for the length of the filler (raw material of straw), the fact that said reference discloses that the filler is ground is interpreted to have created lengths of less than 100mm. In addition, one skilled in the art would have appreciated that the length of the fiber would be dependent on the product sought (i.e. the length of the fiber would not be larger than the length of the product sought), thus the selection of the length is obvious dependent on the intended material to be formed.

Regarding claim 14, it is to be noted that the filler (i.e. raw material such as straw) disclosed by Haacke is used in a composition which is combined with a bonding agent, molded and solidified; therefore, it is the examiner's position and said filler is compressible absence clear and specific evidence showing the contrary.

Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke in view of U.S. Patent No. 5,690,874 to Bell and further in view of U.S. Patent No. 6,031,012 to Nakanishi et al.

It is well recognized in the art to treat cellulosic fibers with a flame retardant-see Bell, claims 16-17. In view of this, the treatment of straw, which is a cellulosic material, would have been obvious in order to optimize the properties of the straw and resulting properties of the final product (i.e. protect the material from heat and/or flame-it is to be noted that the primary reference is clearly directed to heat insulating). With respect to the specific type of flame retardant, the claimed material is known as shown by Nakanishi et al in column 19, line 50-60, thus one skilled in the art would have appreciated that concept of using known flame retardants.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above as evidenced by DE4218365 to Guchert et al.

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Haacke teaches a sound-insulating material comprising raw materials such as straw (i.e. natural straw) which could be decomposed and bonding agent as detailed above.

It is to be noted that since Haacke teaches raw material of straw which may be decomposed and used in a sound-insulating material; this is taken to read on the limitation of instant claim 4 considering the fact that raw straw or natural straw is expected to have come from a natural stalk structure absence clear and specific evidence showing the contrary and as evidenced by DE4218365 to Guchert et al. (Abstract).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as evidenced by DE4218365 to Guchert et al. as applied to claim 4 above, and further in view of U.S. Patent No. 2,074,339 to Miles.

Haacke teaches a sound-insulating material comprising raw materials such as straw (i.e. natural straw) which could be decomposed and bonding agent as detailed above.

It is apparent and known that natural straw comprises natural fiber. Since the reference discloses the possibility of decomposing straw, thus, the characteristic of neutralization as a result of disintegration or decomposition is expected to follow from the decomposed raw or natural straw absence specific evidence proving the contrary. It is to be noted that the reference teaches the natural fiber (i.e. natural or raw straw) is “at

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least partly neutralized”; thus, the disclosure of the reference is seen to read on instantly claimed limitation.

Although Haacke does not expressly detail out and disclose different bindings such as pentosan, lignin and cellulose bindings of straw, it would have been apparent and known to a skilled artisan that straw and other types of vegetable materials containing cellulose, also, have lignin and pentosan as this is clearly taught by Miles (page 1, lines 1-40). Miles is specifically drawn to separating cellulose from pentosan and lignin which is done through adding water and dilute compounds such as nitric acid at elevated temperatures for a period of time (page 1, lines 50-60) which is a similar process of conducted to disintegrate or decompose straw material specifically because it separates different components of straw. Therefore, it is obvious to a person of ordinary skill in the art that upon decomposing or disintegrating straw, the lignin, pentosan and cellulose bindings, which are known to exist within straw as noted above, are separated or loosened.

Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above, and further in view of U.S. Patent No. 1,726,078 to Leyst.

Haacke teaches a sound-insulating material comprising raw materials such as straw (i.e. natural straw) which could be decomposed and bonding agent as detailed above.

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Haacke does not expressly disclose the process through which the raw materials of straw are decomposed or disintegrated nor the reference discloses boiling or temperizing the straw.

Nevertheless, it would have been obvious to a person of ordinary skill in the art to have decomposed the straw of Haacke by way of boiling it in a high temperature, such as 95-100°C, after the straw has been cut into suitable sizes and certain compounds such as strong alkali (i.e. pulpy composition has been formed) has been added into (Leyst; page 1, lines 1-20 and 69-75).

Therefore, it would have been obvious to one skilled in the art to have used the boiling of straw to decompose it as that taught by Leyst motivated by the fact that Haacke discloses decomposition of raw materials such as straw and the fact that it does not disclose a specific process for doing so, is interpreted as having done the process of decomposition of straw in any and all methods known such as for example the one taught by Leyst.

Claims 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above, and further in view of U.S. Patent No. 4,133,932 to Peck.

Regarding claim 7, Haacke teaches a sound-insulating material comprising raw materials such as straw which may be decomposed and bonding agent.

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The reference does not expressly disclose a specific bonding agent. However, the use of a binder such as bitumen in deadening material (i.e. sound-insulating material) would have been obvious to a skilled artisan considering the fact that Peck, drawn to a sound deadener sheet, discloses the use of bitumen as a binder in said sound deadener sheet (column 2, lines 60-62; column 2, lines 20-25). The combination of Haacke in view of Peck would have been motivated by, specially, the fact that Haacke discloses the use of bonding agent in his deadening material, and this is seen to broadly read on any bonding agent used for making deadening material (i.e. sound-insulating material) such as bitumen disclosed by Peck.

A clear case of prima facie obviousness is set; now the burden shifts to Applicants to show why one would not and could not use bitumen as the binder or bonding agent in the teaching of Haacke.

Regarding claim 28, although Haacke may not expressly or literally disclose the use of said sound-insulating material in automobile, rail cars, air planes or ships, it would have been known to a skilled artisan to have utilized the sound-insulating material in, for example, automobile motivated by the fact that as shown by Peck, it has been known to have used sound deadener materials for automobile floor pans (column 1).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above as evidenced by U.S. Patent No. 3,754,930 to Toei et al.

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Haacke teaches a sound-insulating material comprising raw materials such as straw which may be decomposed and bonding agent.

Haacke does not expressly disclose the density of the raw material of straw that has been used in said reference. However, it would have been obvious to a person of ordinary skill in the art to have a density of less than 2000 kg/cbm for the filler (i.e. raw material such as straw) used in the sound-insulating material of Haacke considering the fact that wheat is known to be a natural or raw straw and has a density of 780 kg/m^3 ($78 \times 10^{-5} \text{ kg/cbm}$) as that evidenced by Toei et al. (column 4, lines 35-40).

It is to be noted that the fact that Haacke discloses the use of a raw material such as straw would broadly read on any raw straw such as wheat.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above, and further in view of Peck as evidenced by U.S. Patent No. 1,970,426 to Levin.

Haacke teaches a sound-insulating material comprising raw materials such as straw which may be decomposed and bonding agent, and the combination of Haacke in view of Peck make it obvious to have utilized bitumen as the bonding agent in Haacke as detailed out above.

The primary reference does not expressly disclose a specific bonding agent. However, the use of a binder such as bitumen in deadening material (i.e. sound-insulating material) would have been obvious to a skilled artisan considering the fact that Peck, drawn to a sound deadener sheet, discloses the use of bitumen as a binder

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in said sound deadener sheet (column 2, lines 60-62; column 2, lines 20-25). The combination of Haacke in view of Peck would have been motivated by, specially, the fact that Haacke discloses the use of bonding agent in his deadening material, and this is seen to broadly read on any bonding agent used for making deadening material (i.e. sound-insulating material) such as bitumen disclosed by Peck.

A clear case of prima facie obviousness is set; now the burden shifts to Applicants to show why one would not and could not use bitumen as the binder or bonding agent in the teaching of Haacke.

Although said combination may not expressly disclose the bitumen is a heat fusible substance, it would have been apparent and known to a skilled artisan that bitumen is a heat fusible substance as that made evidenced by Levin (page 1, lines 1-5).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above, as evidenced by U.S. Patent No. 3,672,385 to Matzen.

Haacke teaches a sound-insulating material comprising raw materials such as straw which may be decomposed and bonding agent. Although Haacke does not expressly disclose the use of said sound-insulating material in a magnetizable material, the use of sound-insulating materials (or dampening materials) in magnetizable materials have been known as that evidenced by Matzen (column 3, lines 25-30) which discloses the existence of dampening material made at least part of magnetizable material.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above, and in further view of U.S. Patent No. 3,959,191 to Kehr et al.

Haacke teaches a sound-insulating material comprising raw materials such as straw which may be decomposed and bonding agent.

Haacke does not expressly or literally disclose that the raw straw (i.e. natural straw) used is partly chaffed or shredded.

However, Kehr et al., drawn to improved foams for use in sound deadening surfaces, disclose the use of shredded cornstalks, straw, hay and the like in said foams because these materials change properties of foams such as improving load-bearing characteristics of the foams (Abstract; column 5, lines 59-63; column 6, lines 16-28).

Therefore, it would have been obvious to a person of ordinary skill in the art to have modified Haacke in order to include shredded cornstalks, straw, hay or the like in the sound-insulating material as that taught by Kehr et al. motivated by the fact that shredded cornstalks, straw, hay or the like would improve the load-bearing characteristics of foam materials used in sound deadening material.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haacke as applied to claim 1 above, and further in view of *Cellulose from Cereal Straw* by Sidney Wells.

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Haacke teaches a sound-insulating material comprising raw materials such as straw which may be decomposed and bonding agent.

Although Haacke may not expressly disclose the proportions of raw fiber, lignin, pentosan and cellulose in the straw; however, Sidney Wells in the article of *Cellulose from Cereal Straw* disclose that straw comprises 3.7% pentosan, 1.6% cellulose, and 13.8% lignin in the straw of said article which is preferably considered to have come from wheat (page 276). Sidney Wells also disclose that a yield of 55% is obtained in the fiber liberation/bleaching process (page 27); thus, it is the examiner's position that it is within reasonable expectation that a fiber content of 55% exists within the straw absence clear and specific evidence to the contrary.

The combination is motivated by the fact that Haacke discloses the use of raw (i.e. natural) material such as straw, and thus, since Wells disclose that the straw may come from wheat, it would have been obvious to a skilled artisan that the straw disclosed by Haacke may be wheat having the proportions of constituents as disclosed by Wells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGAH PARVINI whose telephone number is (571)272-2639. The examiner can normally be reached on Monday to Friday 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Pegah Parvini/
Examiner, Art Unit 1793

/Michael A Marcheschi/
Primary Examiner, Art Unit 1793